



PUBLIC NOTICE

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WIRELINE COMPETITION BUREAU PUBLISHES MAP OF STUDY AREAS FOR USE IN ALTERNATIVE CONNECT AMERICA COST MODEL

WC Docket No. 10-90

In the *April 2014 Connect America Order and FNPRM*, the Commission proposed a transition framework for a voluntary election by rate-of-return carriers to receive model-based support and directed the Wireline Competition Bureau (Bureau) to make the adjustments necessary to the Connect America Cost Model so that it could be used for rate-of-return areas, including incorporating the results of the Bureau's study area boundary data collection.¹ Today, the Bureau publishes an online, publicly-accessible map of rate-of-return study areas that will be incorporated into the next version of the Alternative Connect America Cost Model (A-CAM).²

A-CAM calculates the forward-looking economic costs of deploying and operating a fiber-to-the-premise (FTTP) network in rate-of-return areas of the country. First, the model creates a network topology that routes plant along roads from a central office location to ensure each location is "passed" by a network. Then, it calculates the costs associated with that network topology.

The study areas depicted in the map are based on the study area boundary and exchange data that were submitted to the Bureau by rate-of-return carriers and certain state utility commissions.³ In

¹ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order et al., 29 FCC Rcd 7051, 7074, para. 70, 7139-40, para. 276, 7143, para. 290 (2014) (*April 2014 Connect America Order and FNPRM*); see also *Wireline Competition Bureau Announces Availability of Version 4.2 of the Connect America Fund Phase II Cost Model and the First Version of an Alternative Cost Model Being Developed for Potential Use in Rate-of-Return Areas*, WC Docket No. 10-90, Public Notice, 29 FCC Rcd 16157 (Wireline Comp. Bur. 2014); *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 1.0.1 and Illustrative Results for Potential Use in Rate-of-Return Areas*, WC Docket No. 10-90, Public Notice, DA 15-294 (Wireline Comp. Bur. rel. Mar. 6, 2015); *Wireline Competition Bureau Releases Updated Report for Alternative Connect America Cost Model Version 1.0.1*, WC Docket No. 10-90, Public Notice, DA 15-337 (Wireline Comp. Bur. rel. Mar. 16, 2015).

² The map is available at <http://www.fcc.gov/maps/acam-ror-sa-map>. An overview of A-CAM is available at <http://www.fcc.gov/encyclopedia/rate-return-resources#model>. Study area boundaries are not shown for ETS and Sandwich Isles because both companies have pending petitions for waiver regarding the areas in which they respectively provide service. See Petition of ETS Telephone Company, Inc. for Waiver of the Definition of the "Study Area" Boundary Rules Codified in Part 36 of the Commission's Rules, CC Docket No. 96-45 (filed Sept. 17, 2014); Sandwich Isles Communications, Inc. Petition for Waiver of the Definition of "Study Area" Contained in Part 36, Appendix-Glossary of the Commission's Rules, CC Docket No. 96-45 (filed Nov. 29, 2012).

³ On December 2, 2013, the Bureau released a Public Notice announcing the publication of an online map displaying the study area boundaries submitted and certified by incumbent local exchange carriers (LECs) and certain state public utility commissions. *Wireline Competition Bureau Publishes Online Map of Submitted Study Area Boundaries, Announces Procedures for Filing Revised Data*, WC Docket Nos. 10-90 and 05-337,

(continued...)

large part, we used the submitted data as-is to define study area boundaries and exchanges, i.e., “service areas,” for potential use in A-CAM. A service area in A-CAM is analogous to a wire center and represents an area where all the locations are served from a common network node (specifically, the optical line terminal in a FTTP network).

In some circumstances, it was necessary to modify the submitted data to address the discrepancies that remained after the Bureau provided an opportunity to resolve overlaps and voids in the data originally provided, so that the data could be used in the model. The process used to develop service areas for the A-CAM is summarized in this Public Notice.⁴

Determine Study Area Boundaries. The first step was to set the study area boundaries for purposes of the A-CAM. Even after providing the opportunity for carriers to resolve overlaps and voids with their neighbors, some of the submitted study area boundaries overlapped with other rate-of-return study area boundaries. For modeling purposes, overlapped areas containing roads have to be attributed to a single study area because A-CAM utilizes the road network to route outside plant; the model cannot calculate support for more than one rate-of-return carrier to serve the same area.⁵ In order to resolve these overlaps in a consistent and unbiased way, we attributed the overlapped area to the study area with the longest “intersecting” boundary.⁶

Divide Study Areas into Exchanges. The second step was to align the information regarding exchanges submitted in the study area data collection with the study area boundaries to be used in the model. In cases where the submitted boundary of the exchanges differed from the modified study area boundary, we modified the exchanges to match the edges of the study area boundary. We identified coastal islands that lack a connection to the continental United States (including Alaska) as separate exchanges. We merged exchanges that were intersected by a state border if they were in the same study area (thus merging study areas and exchanges that cross state boundaries to reflect the likely physical network rather than the political boundary).

Determine Potential Central Office Locations. The third step was to determine the potential locations to be used in the model for the placement of the optimal line terminal within each exchange. In A-CAM, the boundary of the service area represents the furthest geographic extent that can be served from a given central office location (“Node0” in A-CAM). Where available, we used a commercial data source for the central office location (GeoResults). However, not all service areas had GeoResults central office locations. For the remainder, we placed Node0 in whatever Geographic Names Information System (GNIS) populated place was nearest to the central office

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Public Notice, 28 FCC Rcd 16315 (Wireline Comp. Bur. 2013). The Bureau subsequently directed incumbent LECs to review the online map, resolve any overlaps and voids with neighboring incumbent LECs, and submit and certify revised boundary data. Additional information about the study area boundary data collection and links to related orders, public notices, and a map are available at <http://www.fcc.gov/encyclopedia/study-area-boundary-data-collection>. The study area boundary data are publicly available for download at <https://github.com/FCC/SABdata>.

⁴ We provide a description of this process so parties are able to understand why the geospatial data we are publishing today and plan to use in A-CAM may differ in small respects from the submitted study area boundary data. Given the number of study areas and the number of polygons submitted, the processes were designed to operate without manual decision-making to the extent possible. See A-CAM Service Area Development Process, <http://www.fcc.gov/web/ServiceAreaDevelopmentProcess.docx> (hereinafter A-CAM Service Area Documentation).

⁵ In addition, some of the study areas had interior “holes,” which were filled in because they may contain roads used in A-CAM to route plant efficiently.

⁶ A hypothetical example is illustrated in the A-CAM Service Area Documentation at 5, Fig. 3.

location for a given exchange previously used by the Commission in its prior modeling (what we term a GNIS-HCPM point).⁷

Develop A-CAM Service Areas. The final step was to ensure that each exchange was associated with a single Node0 location. If exchanges had more than one Node0 location greater than 10 airline miles apart, we split the exchanges into smaller areas.⁸ We consolidated some small exchanges in cases where a GeoResults or GNIS-HCPM Node0 point was within one mile of an adjacent exchange boundary within the same study area and the adjacent exchange had no GeoResults Node0 location. If an exchange had neither a GeoResults Node0 nor a GNIS-HCPM point, we used the most central GNIS point, and if there was no GNIS point, we used the interior centroid of the exchange as the Node0 location.⁹

We plan to incorporate this information into the next version of the A-CAM. Interested parties are able to download the geospatial data from the online map in a variety of formats. Although the GeoResults central office (Node0) locations are proprietary, rate-of-return carriers who are registered users of A-CAM, and therefore have executed the relevant acknowledgement of confidentiality, licensing, and nondisclosure documents released as attachments to the *Third Supplemental Protective Order*, can request the A-CAM Node0 File for their incumbent territories at no charge through the A-CAM Support desk (cacmsupport@costquest.com).¹⁰

If rate-of-return carriers have any proposed corrections to the interior service area boundaries or the Node0 locations to be used in the model, those adjustments should be submitted through the A-CAM Support desk no later than May 11, 2015, as the Bureau plans to release A-CAM v2 with the updated study area boundaries. For additional information on this proceeding, contact Katie King (Katie.King@fcc.gov) of the Wireline Competition Bureau, Telecommunications Access Policy Division, (202) 418-7400.

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⁷ The Commission's prior model utilized existing central office locations based on commercial data at that time.

⁸ In cases where there were multiple possible Node0 locations within an exchange, and the Node0s were closer than 10 airline miles apart, we removed the GNIS-HCPM points. *See id.* at 9-10.

⁹ *See id.* at 12.

¹⁰ *See Connect America Fund*, WC Docket No. 10-90, Third Supplemental Protective Order, 27 FCC Rcd 15277 (Wireline Comp. Bur. 2012) (*Third Supplemental Protective Order*). In addition to carriers reviewing their own data, any person who has signed relevant attachments to the *Third Supplemental Protective Order* and agrees to only use the A-CAM Node0 File in WC Docket No. 10-90 can purchase a full national table of all rate-of-return Node0 locations for a nominal fee.